



**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2021-0875; Project Identifier AD-2021-00675-E]**

**RIN 2120-AA64**

**Airworthiness Directives; Continental Aerospace Technologies, Inc. and Continental Motors Reciprocating Engines**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The FAA proposes to adopt a new airworthiness directive (AD) for certain Continental Aerospace Technologies, Inc. C-125, C145, IO-360, IO-470, IO-550, O-300, O-470, TSIO-360, TSIO-520 series model reciprocating engines and certain Continental Motors IO-520 series model reciprocating engines with a certain oil filter adapter installed. This proposed AD was prompted by reports of two accidents that were the result of power loss due to oil starvation. This proposed AD would require removal of the oil filter adapter fiber gasket and its replacement with a copper gasket. The FAA is proposing this AD to address the unsafe condition on these products.

**DATES:** The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: (202) 493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Stratus Tool Technologies, LLC, 2208 Air Park Drive, Burlington, NC 27215; phone: (800) 822-3200; website: <https://www.tempestplus.com>. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call (781) 238-7759.

### **Examining the AD Docket**

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0875; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, any comments received, and other information. The street address for Docket Operations is listed above.

**FOR FURTHER INFORMATION CONTACT:** George Hanlin, Aviation Safety Engineer, Atlanta ACO Branch, FAA, 1701 Columbia Avenue, College Park, GA 30337; phone: (404) 474-5584; fax: (404) 474-5605; email: [george.hanlin@faa.gov](mailto:george.hanlin@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Comments Invited**

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2021-0875; Project Identifier AD-2021-00675-E” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

## **Confidential Business Information**

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to George Hanlin, Aviation Safety Engineer, Atlanta ACO Branch, FAA, 1701 Columbia Avenue, College Park, GA 30337. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

## **Background**

The FAA received reports of two accidents that were the result of power loss due to oil starvation. The first was a fatal accident on May 1, 2019 involving a Cessna 182P airplane with a Continental Motors O-470-S engine in Mill Creek, California. National Transportation Safety Board (NTSB) preliminary accident investigation report, docket number WPR19FA126, identified evidence of improperly maintained or installed oil filter adapters. An improperly maintained or installed oil filter adapter may lead to failure of the fiber gasket, which may result in oil loss or oil starvation. Based on the investigation, the manufacturer determined the need to replace the fiber gasket with a copper gasket. This condition, if not addressed, could result in failure of the engine, in-flight shutdown, and loss of control of the aircraft.

## **FAA’s Determination**

The FAA is issuing this NPRM after determining that the unsafe condition described previously is likely to exist or develop on other products of the same type design.

## **Related Service Information under 1 CFR Part 51**

The FAA reviewed Stratus Tool Technologies Mandatory Service Bulletin (MSB) SB-001 Rev B, dated June 17, 2021. This MSB specifies procedures for removing a fiber gasket and replacing it with a copper gasket. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in ADDRESSES.

## **Proposed AD Requirements in this NPRM**

This proposed AD would require removal of the fiber gasket and replacement with a copper gasket.

## **Costs of Compliance**

The FAA estimates that this AD, if adopted as proposed, would affect 6,300 engines installed on airplanes of U.S. registry.

The FAA estimates the following costs to comply with this proposed AD:

### **Estimated costs**

<b>Action</b>	<b>Labor Cost</b>	<b>Parts Cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Replace fiber gaskets with copper gaskets	2.5 work-hours x \$85 per hour = \$212.50	\$34	\$246.50	\$1,552,950

## **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

## **Regulatory Findings**

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and
- (3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive:

**Continental Aerospace Technologies, Inc. and Continental Motors:** Docket No. FAA-2021-0875; Project Identifier AD-2021-00675-E.

#### **(a) Comments Due Date**

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to the reciprocating engine models identified in paragraphs (c)(1) and (2) of this AD with an F&M Enterprises, Inc. (F&M) or Stratus Tool Technologies, LLC (Stratus) oil filter adapter installed per Supplemental Type Certificate SE8409SW, SE09356SC or SE10348SC.

(1) Continental Aerospace Technologies, Inc. (Type Certificate previously held by Continental Motors, Inc., and Teledyne Continental Motors) C-125-1, C-125-2, C145-2, C145-2H, IO-360-C, IO-360-D, IO-360-DB, IO-360-H, IO-360-HB, IO-360-K, IO-360-KB, IO-470-E, IO-470-S, IO-550-B, IO-550-G, O-300-B, O-300-C, O-300-D, O-300-E, O-470-A, O-470-B, O-470-G, O-470-J, O-470-K, O-470-L, O-470-M, O-470-N, O-470-R, O-470-S, O-470-U O-470-11, O-470-15, TSIO-360-E, TSIO-360-EB, TSIO-360-F, TSIO-360-FB, TSIO-360-GB, TSIO-360-LB, TSIO-360-MB, TSIO-360-SB, TSIO-520-C, TSIO-520-CE, TSIO-520-E, and TSIO-520-UB model reciprocating engines, and

(2) Continental Motors (Type Certificate previously held by Teledyne Continental Motors) IO-520-A, IO-520-B, IO-520-BA, IO-520-BB, IO-520-C, IO-520-D, IO-520-J, and IO-520-L model reciprocating engines.

**(d) Subject**

Joint Aircraft System Component (JASC) Code 8550, Reciprocating Engine Oil System.

**(e) Unsafe Condition**

This AD was prompted by reports of two accidents that were the result of power loss due to oil starvation. The FAA is issuing this AD to prevent loss of engine power. The unsafe condition, if not addressed, could result in failure of the engine, in-flight shutdown, and loss of control of the aircraft.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Required Actions**

Before accumulating 50 flight hours after the effective date of this AD or at the next scheduled oil change after the effective date of this AD, whichever occurs first,

remove any F&M or Stratus oil filter adapter fiber gasket from service and replace it with a Stratus AN900-28 or AN900-29 oil filter adapter copper gasket in accordance with the Compliance Instructions, paragraph 6., pages 7 through 10 (including all detailed instructions for Figure 5 through Figure 16), of Stratus Tool Technologies Mandatory Service Bulletin SB-001 Rev B, dated June 17, 2021.

**(h) Installation Prohibition**

After the effective date of this AD, do not install or reuse an F&M or Stratus fiber gasket in any F&M or Stratus Tool Technologies oil filter adapter.

**(i) Special Flight Permit**

Special flight permits, as described in 14 CFR 21.197 and 21.199, are subject to the requirements of paragraph (i)(1) of this AD:

(1) Operators may perform a one-time non-revenue ferry flight to operate the airplane to a location where the maintenance action can be performed.

(2) [Reserved]

**(j) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Atlanta ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (k)(1) of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(k) Related Information**

(1) For more information about this AD, contact George Hanlin, Aviation Safety Engineer, Atlanta ACO Branch, FAA, 1701 Columbia Avenue, College Park, GA 30337; phone: (404) 474-5584; fax: (404) 474-5605; email: [george.hanlin@faa.gov](mailto:george.hanlin@faa.gov).

(2) For service information identified in this AD, contact Stratus Tool Technologies, LLC, 2208 Air Park Drive, Burlington, NC 27215; phone: (800) 822-3200;

website: <https://www.tempestplus.com>. You may view this referenced service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call (781) 238-7759.

Issued on October 5, 2021.

Gaetano A. Sciortino, Deputy Director for Strategic Initiatives,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

[FR Doc. 2021-22095 Filed: 10/8/2021 8:45 am; Publication Date: 10/12/2021]